

Attorney docket #303.367US1

BURIED CONDUCTORS

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Related Application

This application is related to cofiled, copending and coassigned application entitled "Hi Q Inductive Elements" [Attorney docket #303.381US1], *Serial No. 09/069,346, now U.S. Patent No. 6,025,261.*

DO
1-15-03

Field of the Invention

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This invention relates generally to semiconductor technology, and more particularly to buried conductors within semiconductor devices and structures, and methods for forming such conductors.

Background of the Invention

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Semiconductor technology pervades most electronic devices today. Computers, televisions, videocassette recorders, cameras, etc., all use semiconductor integrated circuits to varying degrees. For example, the typical computer includes microprocessors and dedicated controller integrated circuits (i.e., video controllers, audio controllers, etc.), as well as memory, such as dynamic random-access

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memory. Traditionally, the semiconductor industry has used a process that requires first building a device or series of devices, and then connecting the devices together with a wiring level or levels above the active-device surfaces. As integrated circuit designs have become more complex, several external wiring planes have been used

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to connect adjacent devices. As the number of wiring levels grew, the requirement of the vertical connections has significantly reduced the usefulness of the lower levels.

A limited prior art solution is to use a single buried wiring level in the initial phases of semiconductor fabrication. A single buried wiring level overcomes the

FOOTNOTES